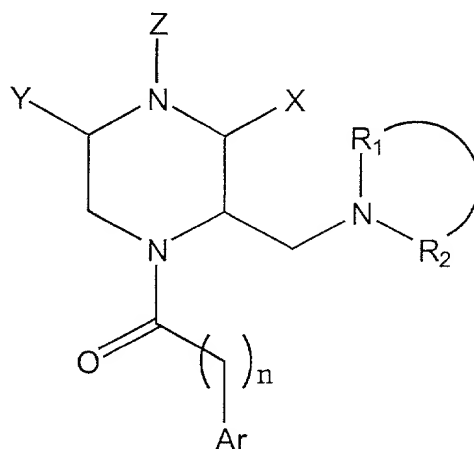


**WHAT IS CLAIMED IS:**

1. A pharmaceutical composition for the prevention or treatment of pruritus comprising a compound of formula I or a pharmaceutically acceptable salt thereof



wherein

$n = 1-3$ ;

$R_1$  and  $R_2$  are independently =  $\text{CH}_3$ ;  $-(\text{CH}_2)_m$ , where  $m =$

4-8,  $-\text{CH}_2\text{CH}(\text{OH})(\text{CH}_2)_2-$ ;  $-\text{CH}_2\text{CH}(\text{F})(\text{CH}_2)_2-$ ;

$-(\text{CH}_2)_2\text{O}(\text{CH}_2)_2-$ ; or  $-(\text{CH}_2)_2\text{CH}=\text{CHCH}_2-$ ;

$\text{Ar} =$  unsubstituted or mono-, or di-substituted phenyl

wherein said substituents are selected from the group

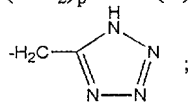
consisting of halogen,  $\text{OCH}_3$ ,  $\text{SO}_2\text{CH}_3$ ,  $\text{CF}_3$ , amino, alkyl,

and 3,4-dichloro; benzothiophenyl; benzofuranyl; naphthyl;

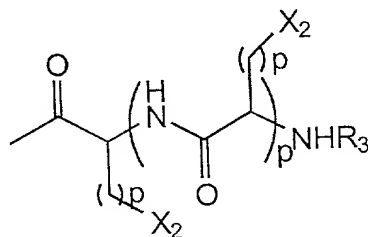
diphenyl methyl; or 9-fluorene;

Z is

$-\text{P}(\text{O})(\text{OBn})_2$ ;  $-\text{P}(\text{O})(\text{OH})_2$ ;  $-(\text{CH}_2)_p\text{C}(\text{O})\text{NHOH}$ ;  $-(\text{CH}_2)_p\text{CO}_2\text{H}$ ;  $-\text{SO}_2\text{CH}_3$ ;  $-\text{SO}_2\text{NH}_2$ ;  
 $-\text{CO}(\text{CH}_2)_p\text{CH}(\text{NH}_2)(\text{CO}_2\text{H})$ ;  $-\text{COCH}(\text{NH}_2)(\text{CH}_2)_p\text{CO}_2\text{H}$ ;  $-\text{CO}_2\text{CH}_3$ ;  $-\text{CONH}_2$ ;  
 $-(\text{CH}_2)_p\text{O}(\text{CH}_2)_p\text{CO}_2\text{H}$ ;  $-(\text{CH}_2)_p\text{O}(\text{CH}_2)_p\text{CONHOH}$ ;  $-(\text{CH}_2)_p\text{NH}\text{SO}_2\text{CH}_3$ ;  $-(\text{CH}_2)_p\text{NHC}(\text{S})\text{NHCH}(\text{CO}_2\text{H})(\text{CH}_2)_p\text{CO}_2\text{H}$ ;  $-(\text{CH}_2)_p\text{SO}_3\text{H}$ ; or



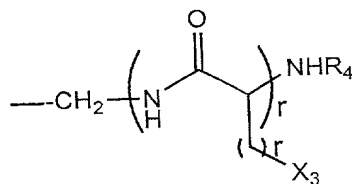
or Z is



wherein

p = 0-20;  
 R<sub>3</sub> = -H or -Ac;  
 X<sub>2</sub> = -CO<sub>2</sub>H; -NHSO<sub>2</sub>CH<sub>3</sub>; NHP(O)(OBn)<sub>2</sub>; NHP(O)(OH)<sub>2</sub>;  
 -OP(O)(OBn)<sub>2</sub>; or OP(O)(OH)<sub>2</sub>;

X and Y are independently  
 -CH<sub>2</sub>NHSO<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>NHP(O)(OBn)<sub>2</sub>, -CH<sub>2</sub>NHP(O)(OH)<sub>2</sub>, -CH<sub>2</sub>OP(O)(OBn)<sub>2</sub>,  
 -CH<sub>2</sub>OP(O)(OH)<sub>2</sub>, -(CH<sub>2</sub>)<sub>q</sub>O(CH<sub>2</sub>)<sub>q</sub>CO<sub>2</sub>H, -(CH<sub>2</sub>)<sub>q</sub>O(CH<sub>2</sub>)<sub>q</sub>SO<sub>3</sub>H,  
 -(CH<sub>2</sub>)<sub>q</sub>O(CH<sub>2</sub>)<sub>q</sub>CHNHOH,  
 -CH<sub>2</sub>NHC(S)NHCH(CO<sub>2</sub>H)(CH<sub>2</sub>)<sub>q</sub>CO<sub>2</sub>H, or



wherein

q = 1-20

r = 1-20

R<sub>4</sub> = -H or -Ac

X<sub>3</sub> = -CO<sub>2</sub>H; -NHSO<sub>2</sub>CH<sub>3</sub>; -NHP(O)(OBn)<sub>2</sub>;  
 -NHP(O)(OH)<sub>2</sub>; -OP(O)(OBn)<sub>2</sub>; or  
 -OP(O)(OH)<sub>2</sub>

in a pharmaceutically acceptable carrier.

2. The pharmaceutical composition according to claim 1 wherein said compound is selected from the group consisting of: {4-[1-(3,4-Dichlorophenyl)acetyl-2R-(1-pyrrolidinyl)-methyl]piperazinyl} acetic acid; [1-(3,4-Dichlorophenyl)acetyl-4-methanesulfonyl-2R-(1-pyrrolidinyl)methyl]piperazine; [4-S-Aspartic acid-α-amido-1-(3,4-dichlorophenyl)acetyl-2R-(1-pyrrolidinyl)methyl]piperazine; Methyl-[2R-(O-2-acetic acid)hydroxymethyl-4-(3,4-dichlorophenyl)acetyl-3R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-[2R-(O-S-aspartic acid-α-acetyl)hydroxymethyl-4-(3,4-dichlorophenyl)acetyl-3R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-[4-(3,4-dichlorophenyl)acetyl-2R-(N-

methanesulfonamido)aminomethyl-3R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-{4-[3,4-dichlorophenyl]acetyl-3R-[1-pyrrolidinyl)methyl-2R-[N-(succinic acid-2S-thioureido)]aminomethyl}-1-piperazinecarboxylate; Methyl-[2S-(O-2-acetic acid)hydroxymethyl-4-(3,4-dichlorophenyl)acetyl-5R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-[2S-(O-S-aspartic acid- $\alpha$ -acetyl)hydroxymethyl-4-(3,4-dichlorophenyl)acetyl-5R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-[4-(3,4-dichlorophenyl)acetyl-2S-(N-methanesulfonamido)aminomethyl-5R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-{4-[3,4-dichlorophenyl]acetyl-5R-[1-pyrrolidinyl)methyl-2S-[N-(succinic acid-2S-thioureido)]aminomethyl}-1-piperazinecarboxylate; Methyl-[2R-(O-2-acetic acid)hydroxymethyl-4-(3,4-dichlorophenyl)acetyl-5R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-[2R-(O-S-aspartic acid- $\alpha$ -acetyl)hydroxymethyl-4-(3,4-dichlorophenyl)acetyl-5R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; Methyl-[4-(3,4-dichlorophenyl)acetyl-2R-(N-methanesulfonamido)aminomethyl-5R-(1-pyrrolidinyl)methyl]-1-piperazinecarboxylate; and Methyl-{4-[3,4-dichlorophenyl]acetyl-5R-[1-pyrrolidinyl)methyl-2R-[N-(succinic acid-2S-thioureido)]aminomethyl}-1-piperazinecarboxylate.

3. The pharmaceutical composition according to claim 1 wherein said compound is selected from the group consisting of:

(*R*)-4-(Phenylmethyl)-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]piperazine hydrochloride;

(*R*)-1-[(3,4-Dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]piperazine hydrochloride;

(*R*)-4-Methanesulfonyl-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine hydrochloride;

(*R*)-4-*t*-Butyl-acetyl-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine;

(*R*)-4-[(3,4-Dichlorophenyl)acetyl]-3-[(1-pyrrolidinyl)methyl]-1-piperazineacetic acid dihydrochloride;

(*R*)-4- N-*t*-Boc-D-aspartic acid- $\beta$ -benzyl ester-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine;

(*R*)-4-Aspartic acid-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine dihydrochloride;

(*R*)-4-Acetyl-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine hydrochloride;

(*R*)-4-(Diethoxyphosphonate)-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine hydrochloride;

5 (*R*)-4-Trifluoroacetyl-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]-piperazine hydrochloride;

(*R*)-4-[(3,4-Dichlorophenyl)acetyl]-3-[(1-pyrrolidinyl)methyl] -1-piperazinecarboxamide hydrochloride;

10 (*R*)-4-[(3,4-Dichlorophenyl)acetyl]-3-[(1-pyrrolidinyl)methyl] -1-piperazinecarboxaldehyde hydrochloride;

15 (*R*)-4-[(3,4-Dichlorophenyl)acetyl]-3-[(1-pyrrolidinyl)methyl] -1-piperazine-sulfonamide hydrochloride;

(*R*)-4-(4-Methylphenylsulfonyl)-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl] -piperazine hydrochloride;

20 (*R,S*)-4-Methanesulfonyl-1-[(3,4-dichlorophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl] -piperazine hydrochloride;

(*R,S*)-4-Methanesulfonyl-1-[(4-methylsulfonylphenyl)acetyl]-2-[(1-pyrrolidinyl)-methyl]piperazine hydrochloride;

25 (*R,S*)-4-Methanesulfonyl-1-[(2-nitrophenyl)acetyl]-2-[(1-pyrrolidinyl)-methyl]piperazine hydrochloride;

30 (*R,S*)-4-Methanesulfonyl-1-[(4-trifluoromethylphenyl)acetyl]-2-[(1-pyrrolidinyl)-methyl]piperazine hydrochloride;

(*R,S*)-4-Methanesulfonyl-1-[(3-indolylacetyl)-2-[(1-pyrrolidinyl)-methyl]piperazine hydrochloride;

35 (*R,S*)-Methyl 4-[(4-methylsulfonylphenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-1-piperazinecarboxylate hydrochloride;

(*R,S*)-Methyl 4-[(4-trifluoromethylphenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-1-piperazinecarboxylate hydrochloride;

40 (*R,S*)-Methyl 4-[(3-indolyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-1-piperazine-carboxylate hydrochloride;

45 (*R,S*)-Methyl 4-[(2-nitrophenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-1-piperazine-carboxylate hydrochloride;

(*R,S*)-Methyl 4-[(2-methoxyphenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-1-piperazine-carboxylate hydrochloride;

(*R,S*)-Methyl 4-[(2-aminophenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-1-piperazine-carboxylate dihydrochloride;

(*R,S*)-4-Acetyl-1-[(4-methylsulfonylphenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]-piperazine hydrochloride;

(*R,S*)-4-Acetyl-1-(4-trifluoromethylphenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl] piperazinecarboxylate hydrochloride;

(*R,S*)-4-Acetyl-1-[(2-trifluoromethylphenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl] piperazinecarboxylate hydrochloride;

(*R,S*)-4-Acetyl-1-[(3-nitrophenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]piperazine-carboxylate hydrochloride;

(*R,S*)-4-Acetyl-1-[(2-nitrophenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]piperazine-carboxylate hydrochloride;

(*R,S*)-4-Acetyl-1-[(4-nitrophenyl)acetyl]-3-[(1-pyrrolidinyl)-methyl]piperazine-carboxylate hydrochloride; and

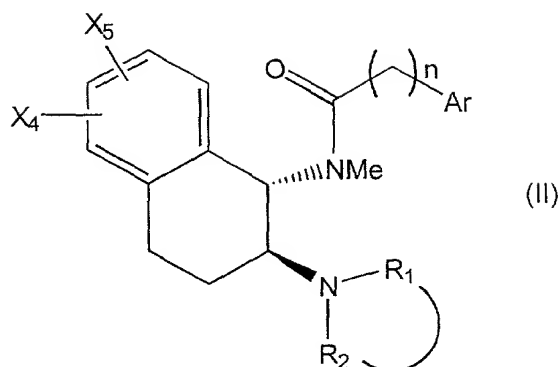
(*R,S*)-4-(Phenylmethyl)-1-[(4,5,-dichloro-2-nitrophenyl)acetyl]-2-[(1-pyrrolidinyl)methyl]piperazine dihydrochloride.

4. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 1.

5. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 2.

6. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 3.

7. A pharmaceutical composition for the prevention or treatment of pruritus comprising a compound of formula II or a pharmaceutically acceptable salt thereof



wherein

$n = 1-3$ ;

$R_1$  and  $R_2$  are independently  $= CH_3$ ;  $-(CH_2)_m$ , where  $m =$

4-8,  $-CH_2CH(OH)(CH_2)_2-$ ;  $-CH_2CH(F)(CH_2)_2-$ ;

$-(CH_2)_2O(CH_2)_2-$ ; or  $-(CH_2)_2CH=CHCH_2-$ ;

$Ar =$  unsubstituted or mono-, or di-substituted phenyl

wherein said substituents are selected from the group

consisting of halogen,  $OCH_3$ ,  $SO_2CH_3$ ,  $CF_3$ , amino, alkyl,

and 3,4-dichloro; benzothiophenyl; benzofuranyl; naphthyl;

diphenyl methyl; or 9-fluorene;

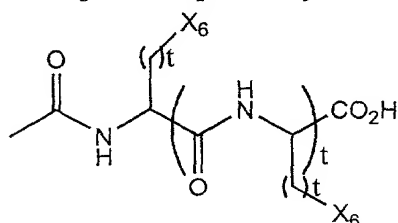
$X_4$  and  $X_5$  are independently

$-OP(O)(OBn)_2$ ;  $-OP(O)(OH)_2$ ;  $-CO_2H$ ;  $-SO_3H$ ;  $-SO_3H$ ;  $-O(CH_2)_nCO_2H$ ;

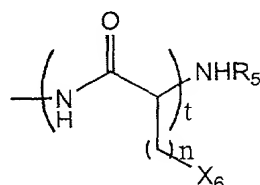
$-NH-SO_2CH_3$ ;  $-CONH(CH_2)_sCO_2H$ ; or  $-SO_2NH(CH_2)_sCO_2H$ ; wherein

$s = 1-5$

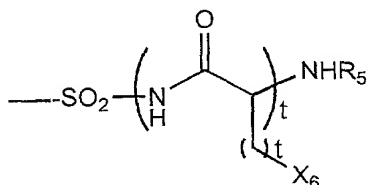
or  $X_4$  and  $X_5$  are independently



; or



; or



wherein

t = 1-20

R<sub>5</sub> = -H or -Ac

X<sub>6</sub> = -CO<sub>2</sub>H; -NH<sub>2</sub>SO<sub>2</sub>CH<sub>3</sub>; -NHP(O)(OBn)<sub>2</sub>;  
-NHP(O)(OH)<sub>2</sub>; -OP(O)(OBn)<sub>2</sub>; or  
-OP(O)(OH)<sub>2</sub>.

in a pharmaceutically acceptable carrier.

8. The pharmaceutical composition according to claim 7 wherein said compound is selected from the group consisting of: (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-5-(O-2-acetic acid)-hydroxy-2-(1-pyrrolidinyl)naphthyl]acetamide; (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-7-(O-2-acetic acid)-hydroxy-2-(1-pyrrolidinyl)naphthyl]acetamide; (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-7-(N-methanesulfonamido)-amino-2-(1-pyrrolidinyl)naphthyl]acetamide; (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-5-(N-methanesulfonamido)-amino-2-(1-pyrrolidinyl)naphthyl]acetamide; (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-5-(N-2-acetic acid)-carboxamido-2-(1-pyrrolidinyl)naphthyl]acetamide; (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-5-(N-2-acetic acid)-sulfonamido-2-(1-pyrrolidinyl)naphthyl]acetamide; (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-7-(N-2-acetic acid)-carboxamido-2-(1-pyrrolidinyl)naphthyl]acetamide; and (±)-2-(3,4-dichlorophenyl)-N-methyl-N-1-[1,2,3,4-tetrahydro-7-(N-2-acetic acid)-sulfonamido-2-(1-pyrrolidinyl)naphthyl]acetamide.

9. The pharmaceutical composition according to claim 7 wherein said compound is selected from the group consisting of:

2-{7-[(±)-trans-1-(N-3,4-dichlorophenylacetamido-N-methylamino)-2-(1-pyrrolidinyl)-1,2,3,4-tetrahydronaphthoxy]}acetic acid;

2,2-Diphenyl-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-methoxy-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2,2-Diphenyl-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-hydroxy-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(2-Nitro-4,5-dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-nitro-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-nitro-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-amino-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(4-Methylsulfonylphenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-nitro-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-{[±]-trans-2-[1-pyrrolidinyl]-7-[N,N-bis-(t-butoxycarbonylmethyl)-amino]-1,2,3,4-tetrahydronaphth-1-yl} acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-{[±]-trans-2-[1-pyrrolidinyl]-7-[N,N-bis-(carboxymethyl)amino]-1,2,3,4-tetrahydronaphth-1-yl} acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-{[±]-trans-2-[1-pyrrolidinyl]-7-[N,N-bis-(ethoxycarbonylmethyl)-amino]-1,2,3,4-tetrahydronaphth-1-yl} acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-(N-diethylphosphoramidato-amino)-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-{[±]-trans-2-[1-pyrrolidinyl]-7-[N-2-(diethylphosphoryl)ethyl-amino]-1,2,3,4-tetrahydronaphth-1-yl} acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-6-methoxy-7-(N-benzyl-N-methylaminosulfonyl)-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(3,4-Dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-7-(N-benzyl-N-methylaminosulfonyl)-1,2,3,4-tetrahydronaphth-1-yl]acetamide;

2-(2-Nitro-4,5-dichlorophenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-indan-1-yl]acetamide;

2-(2-Nitro-4-trifluoromethylphenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-indan-1-yl]acetamide;

2,2-Diphenyl-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-indan-1-yl]acetamide; and

2-(4-Methylsulfonylphenyl)-N-methyl-N-[(±)-trans-2-(1-pyrrolidinyl)-indan-1-yl]acetamide.

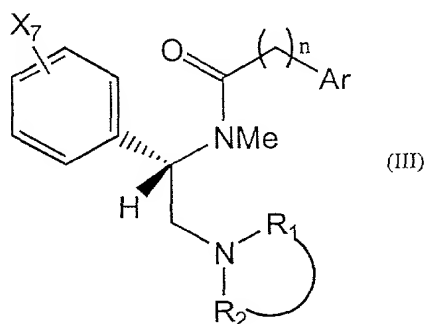
10. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 7.

11. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 8.



12. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 9.

13. A pharmaceutical composition for the prevention or treatment of pruritus comprising a compound of the formula **III** or a pharmaceutically acceptable salt thereof



wherein

$n = 1-3$ ;

$R_1$  and  $R_2$  are independently  $= \text{CH}_3$ ;  $-(\text{CH}_2)_m$ , where  $m =$

4-8,  $-\text{CH}_2\text{CH}(\text{OH})(\text{CH}_2)_2-$ ;  $-\text{CH}_2\text{CH}(\text{F})(\text{CH}_2)_2-$ ;

$-(\text{CH}_2)_2\text{O}(\text{CH}_2)_2-$ ; or  $-(\text{CH}_2)_2\text{CH}=\text{CHCH}_2-$ ;

$\text{Ar} =$  unsubstituted or mono-, or di-substituted phenyl

wherein said substituents are selected from the group

consisting of halogen,  $\text{OCH}_3$ ,  $\text{SO}_2\text{CH}_3$ ,  $\text{CF}_3$ , amino, alkyl,

and 3,4-dichloro; benzothiophenyl; benzofuranyl; naphthyl;

diphenyl methyl; or 9-fluorene;

$X_7$  is

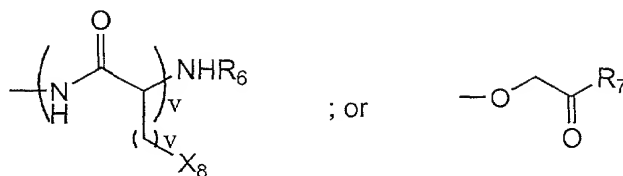
$-\text{NHSO}_2\text{CH}_3$ ;  $-\text{NHP}(\text{O})(\text{OBn})_2$ ;  $-\text{NHP}(\text{O})(\text{OH})_2$ ;  $-(\text{CH}_2)_u\text{NHSO}_2\text{CH}_3$ ;

$-(\text{CH}_2)_u\text{NHC}(\text{S})\text{NHCH}(\text{CO}_2\text{H})(\text{CH}_2)_u\text{CO}_2\text{H}$ ;  $-\text{CONHOH}$ ; or  $-(\text{CH}_2)_u\text{CONHOH}$ ;

wherein

$u = 1-5$ ;

or  $X_7$  is



$R_6 = -H$  or  $-Ac$ ;

$X_8 = -CO_2H$ ;  $-NHSO_2CH_3$ ;  $-NHP(O)(OBn)_2$ ;  
 $-NHP(O)(OH)_2$ ;  $-OP(O)(OBn)_2$ ; or  
 $-OP(O)(OH)_2$ ;

$R_7 = -NH(CH_2)_vCO_2H$ ;  $-NH(CH_2)_vCH(NH_2)(CO_2H)$ ;  
 $-NHCH(CO_2H)(CH_2)_vNH_2$ ;  $-NH(CH_2)_vSO_3H$ ;  
 $-NH(CH_2)_vPO_3H_2$ ;  $-NH(CH_2)_vNHC(NH)NH_2$ ; or  
 $-NHCH(CO_2H)(CH_2)_vCO_2H$ ; and  
 $v = 1-20$ .

in a pharmaceutically acceptable carrier.

14. The pharmaceutical composition according to claim 13 wherein said compound is selected from the group consisting of:  
 2-(3,4-dichlorophenyl)-N-methyl-N-{1-[3-(N-2-acetic acid)carboxamido]phenyl-2-(1-pyrrolidinyl)ethyl}acetamide; 2-(3,4-dichlorophenyl)-N-methyl-N-{1-[3-(N-methanesulfonamido)aminomethyl]phenyl-2-(1-pyrrolidinyl)ethyl}acetamide; 2-(3,4-dichlorophenyl)-N-methyl-N-{1-[3-(N-succinic acid-2S-thioureido)aminomethyl]phenyl-2-(1-pyrrolidinyl)ethyl}acetamide; and 2-(3,4-dichlorophenyl)-N-methyl-N-{1-[3-(N-2-acetic acid)sulfonamido]phenyl-2-(1-pyrrolidinyl)ethyl}acetamide.
15. The pharmaceutical composition according to claim 13 wherein said compound is selected from the group consisting of:  
 2-(3,4-Dichlorophenyl)-N-methyl-N-{[1S]-1-[N-(S-aspartic acid- $\alpha$ -amide-S-aspartic acid- $\alpha$ -amido)-3-aminophenyl]-2-[1-pyrrolidinyl]ethyl}acetamide;  
 2-(3,4-Dichlorophenyl)-N-methyl-N-{[1S]-1-[N-(bis-methylsulfonamido)-3-aminophenyl]-2-[1-pyrrolidinyl]ethyl}acetamide;  
 2-(2-Nitrophenyl)-N-methyl-N-[(1S)-1-(3-nitrophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;  
 2-(2-Aminophenyl)-N-methyl-N-[(1S)-1-(3-aminophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;  
 2-(N-Diethyl phosphoramidate-2-aminophenyl)-N-methyl-N-[(1S)-1-(N-diethyl phosphoramidate-3-aminophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;  
 2-(N-Bis-sulfonamido-2-aminophenyl)-N-methyl-N-[(1S)-1-(N-bis-sulfonamido-3-aminophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;  
 2-(2-Nitro-4,5-dichlorophenyl)-N-methyl-N-[(1S)-1-(3-nitrophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(4-Methylsulfonylphenyl)-N-methyl-N-[(1S)-1-(3-nitrophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N-Butyloxycarbonyl-4-aminophenyl)-N-methyl-N-[(1S)-1-(3-nitrophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(4-Aminophenyl)-N-methyl-N-[(1S)-1-(3-nitrophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N-Bis-sulfonamido-4-aminophenyl)-N-methyl-N-[(1S)-1-(3-nitrophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N-Bis-sulfonamido-4-aminophenyl)-N-methyl-N-[(1S)-1-(3-aminophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N-Bis-sulfonamido-4-aminophenyl)-N-methyl-N-[(1S)-1-(N-diethyl phosphoramidate-3-aminophenyl)-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Nitrophenyl)-N-methyl-N- {[1S]-1-phenyl-2-[1-(3S)-(3-hydroxypyrrolidinyl)]ethyl} acetamide;

2-(2-Nitro-4,5-dichlorophenyl)-N-methyl-N- {[1S]-1-phenyl-2-[1-(3S)-(3-hydroxypyrrolidinyl)]ethyl} acetamide;

2-(4-Methylsulfonylphenyl)-N-methyl-N- {[1S]-1-phenyl-2-[1-(3S)-(3-hydroxypyrrolidinyl)]ethyl} acetamide;

2-(2-Nitro-4-trifluoromethylphenyl)-N-methyl-N- {[1S]-1-phenyl-2-[1-(3S)-(3-hydroxypyrrolidinyl)]ethyl} acetamide;

2-(2-Amino-4-trifluoromethylphenyl)-N-methyl-N- {[1S]-1-phenyl-2-[1-(3S)-(3-hydroxypyrrolidinyl)]ethyl} acetamide;

2,2-Diphenyl-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

N',N'-Diphenyl-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]urea;

2-(2-Nitrophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Nitro-4,5-dichlorophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(4-Methylsulfonylphenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Methoxyphenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(3-Indolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-( $\alpha,\alpha,\alpha$ -Trifluoro-p-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Nitro- $\alpha,\alpha,\alpha$ -Trifluoro-4-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(1-[4-Chlorobenzoyl]-5-methoxy-2-methyl indole)-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(4-Nitrophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(3-Nitrophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Pyridyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(3-Pyridyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-((+)-6-Methoxy- $\alpha$ -methyl-2-naphthalene)-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-( $\alpha,\alpha,\alpha$ -Trifluoro-3-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(4-Pyridyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-( $\alpha,\alpha,\alpha$ -Trifluoro-2-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-((S)-(+)-4-Isobutyl- $\alpha$ -methylphenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(3,4,5-Trimethoxyphenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-N,N-Dimethylsulfonamido-2-aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N-Methylsulfonamido-2-aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Amino 4,5-dichlorophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N,N-Dimethylsulfonamido-2-amino-4,5-dichlorophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Amino- $\alpha,\alpha,\alpha$ -Trifluoro-4-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-N,N-Dimethylsulfonamido-2-amino- $\alpha,\alpha,\alpha$ -trifluoro-4-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N-Methylsulfonamido-2-amino- $\alpha,\alpha,\alpha$ -trifluoro-4-tolyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(4-Aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N,N-Dimethylsulfonamido-2-aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(N,N-Dimethylsulfonamido-2-aminophenyl)-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide;

2-(2-Hydroxyphenyl)-N-methyl-N-methyl-N-[(1S)-1-phenyl-2-(1-pyrrolidinyl)ethyl]acetamide; and

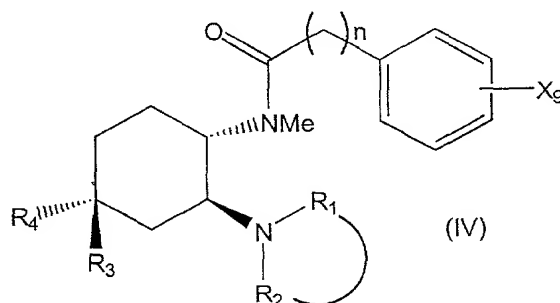
N-Methyl-N-[(1S)-1-phenyl-2-((3S)-3-hydroxypyrrolidine-1-yl)ethyl]-3,4,5-trimethoxyphenylacetamide.

16. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 13.

17. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 14.

18. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 15.

19. A pharmaceutical composition for the prevention or treatment of pruritus comprising a compound of the formula **IV** or a pharmaceutically acceptable salt thereof



wherein

$n = 1-3$ ;

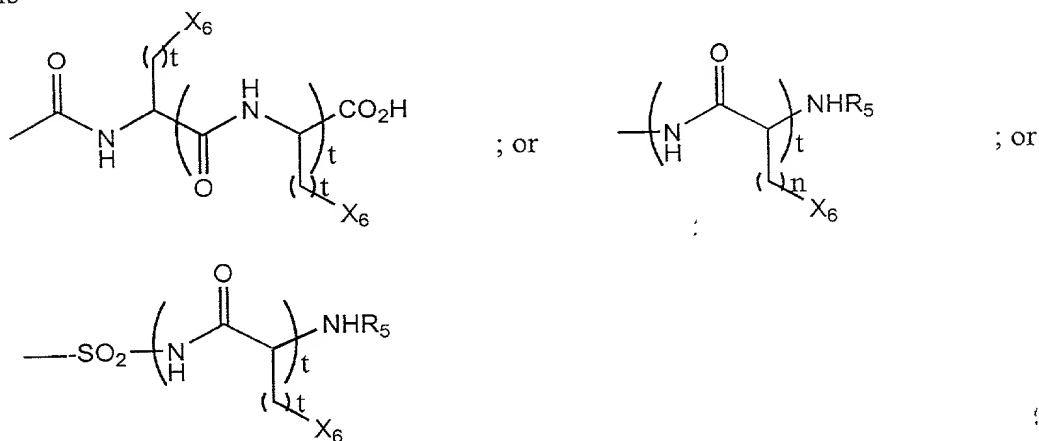
$R_1$  and  $R_2$  are independently  $= CH_3$ ;  $-(CH_2)_m$ , where  $m = 4-8$ ,  $-CH_2CH(OH)(CH_2)_2$ ;  $-CH_2CH(F)(CH_2)_2$ ;  $-(CH_2)_2O(CH_2)_2$ ; or  $-(CH_2)_2CH=CHCH_2$ ;

$R_3$  and  $R_4$  are independently H;  $OCH_3$ ; alkyl; or  $c-O(CH_2)_2$ ;

5  $X_9 = 1-4$  substituents selected from the groups consisting of

-halogen,  $-CF_3$ ;  $-OCH_3$ ;  $-SO_2NH(CH_2)_qCO_2H$ ;  $-CONH(CH_2)_qCO_2H$ ;  
 $-NH_2$ ;  $-NHSO_2CH_3$ ;  $-NHP(O)(OBn)_2$ ;  $-NHP(O)(OH)_2$ ;  $NH(CH_2)_qCO_2H$ ;  $-SO_2CH_3$ ;  
 $-OP(O)(OBn)_2$ ;  $-OP(O)(OH)_2$ ;  $-CO_2H$ ;  $-O(CH_2)_qCO_2H$ ;  $-O(CH_2)_qSO_3H$ ,  
 $-O(CH_2)_qOPO_3H_2$ ; wherein  
 $q = 1-20$ ;

or  $X_9$  is



15 wherein

$t = 1-20$ ;

$R_5 = -H$  or  $-Ac$ ;

$X_6 = -CO_2H$ ;  $-NHSO_2CH_3$ ;  $-NHP(O)(OBn)_2$ ;

$-NHP(O)(OH)_2$ ;  $-OP(O)(OBn)_2$ ; or

$-OP(O)(OH)_2$ .

in a pharmaceutically acceptable vehicle.

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20. The pharmaceutical composition according to claim 19 wherein said compound is selected from the group consisting of:

(-)-(5 $\alpha$ ,7 $\alpha$ ,8 $\beta$ )-N-methyl-N-[7-(1-pyrrolidinyl)-1-oxaspiro-[4,5]dec-8-yl]-3-(N-methanesulfonamido)aminophenylacetamide; (-)-(5 $\alpha$ ,7 $\alpha$ ,8 $\beta$ )-N-methyl-N-[7-(1-pyrrolidinyl)-1-oxaspiro-[4,5]dec-8-yl]-3-(N-2-acetic acid)sulfonamidophenylacetamide; and (-)-(5 $\alpha$ ,7 $\alpha$ ,8 $\beta$ )-N-methyl-N-[7-(1-pyrrolidinyl)-1-oxaspiro-[4,5]dec-8-yl]-3-(N-2-acetic acid)carboxamidophenylacetamide.

21. The pharmaceutical composition according to claim 19 wherein said compound is selected from the group consisting of:

( $\pm$ )-*trans*-2-Nitro-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Amino-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Nitro-4,5-dichloro-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Amino-4,5-dichloro-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Methanesulfonamido-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

N-[2-( $\pm$ )-*trans*-N-Methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamido]glycine Hydrochloride;

( $\pm$ )-*trans*-4-Trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Nitro-4-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Amino-4-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Bismethanesulfonamido-4-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

( $\pm$ )-*trans*-2-Methanesulfonamido-4-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

N-[2-(±)-*trans*-4-Trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamido]glycine Hydrochloride;

5 (±)-*trans*-3-Trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

(±)-*trans*-5-Nitro-3-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

10 (±)-*trans*-2-Nitro-3-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

(±)-*trans*-2-Trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

15 (±)-*trans*-4-Nitro-2-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

20 (±)-*trans*-4-Amino-2-trifluoromethyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-phenylacetamide Hydrochloride;

(±)-*trans*-N-Methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]2,2-diphenylacetamide Hydrochloride; and

25 (±)-*trans*-4-Methylsulfonyl-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]phenylacetamide Hydrochloride.

22. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 19.

30 23. A method for the prevention or treatment of pruritus in a patient comprising administering to said patient an effective amount of a composition according to claim 20.

24. A method for the prevention or treatment of pruritus in a patient comprising  
35 administering to said patient an effective amount of a composition according to claim 21.